

MCA Examination
Semester - I
Subject: Computer Science Fundamentals
Maximum Marks: 50

Section A: Multiple Choice Questions (15 Marks)

1. Which of the following is the main function of the CPU?

- (a) Store data
- (b) Execute instructions
- (c) Provide output
- (d) None of the above

(5 Marks)

2. Which of the following is a high-level programming language?

- (a) Assembly Language
- (b) C++
- (c) Machine Language
- (d) Binary Code

(5 Marks)

3. In which year was the first computer virus discovered?

- (a) 1970
- (b) 1983
- (c) 1986
- (d) 1990

(5 Marks)

Section B: Short Answer Questions (35 Marks)

- (a) Explain the concept of a "Stack" in data structures with an example. (5 Marks)
- (b) What is the difference between primary key and foreign key in relational databases? (5 Marks)
- (c) Define the term "Object-Oriented Programming". List the four main principles of OOP. (5 Marks)
- (d) Write a C++ program to find the factorial of a number using recursion. (5 Marks)
- (e) What is the difference between a process and a thread? (5 Marks)
- (f) Explain the different types of software licenses. (5 Marks)
- (g) Describe the concept of a "Linked List" and its advantages over arrays. (5 Marks)